

Although no mining claims exist within the WSA at present, development of new claims or leases would have an adverse impact on wilderness values of naturalness and solitude. The potential for locatable or leasable minerals occurring in the WSA is low (Fredericksen and Fernette 1983), and the probability of damage to wilderness resources from mineral development is also low.

Natural History

Project work that occurred in four of the AGI would be examined to assure that access to sensitive areas would not be improved.

Geologic formations associated with the Bonneville Flood would be protected from human disturbance that would impair natural history values in the proposed Dry Cataracts National Natural Landmark. This includes alluvial gravel deposits; mineral material sale and free use would be prohibited.

Resource use proposals would be examined closely to prevent degradation of natural history values related to the unique alcove ecosystem in the proposed Box Canyon National Natural Landmark.

Cultural Resources

Since any Bureau authorized or initiated action recognizes and accommodates cultural resources by virtue of our standard operating procedures (see Appendix H), the only activity which may damage these resources is unplanned public use. Such activities include unauthorized recreational vehicle use, artifact collection, and illegal excavation for materials and antiquities. The location of these activities is impossible to predict and may occur in spite of measures designed to exclude or limit them.

Effects of Alternative C would be the same as Alternative B with 5,550 acres of high density cultural resource areas being protected by ORV closure, 2,240 acres of high density areas protected by ORV limitations in the Cedar Fields SRMA, and 7,685 acres of high density areas protected by limited disturbance.

Recreation

The growth rates discussed below are long-term (20-year) projections. The projected growth rates, both short-term (5-year) and long-term, are listed in Table 2-3 for various recreation activities.

Growth of nature study, fishing and dispersed recreation activities would surpass growth of these activities if present management, as reflected in Alternative A, would continue. Growth of hunting and ORV visitor use days would not be as pronounced as if present management were continued. Recreation opportunities would generally decrease in quality. Recreationists would experience greater competition for recreation resources and recreation-related conflicts would increase.

Nature study would experience a 48 percent increase in contrast to a 40 percent increase under present management. This would occur as a result of wilderness designation of Raven's Eye and Sand Butte WSAs and by the reduction of sediment in lower Vineyard Creek. Wilderness designation would improve or maintain the natural character of these areas by excluding disturbing influences such as ORVs, some rangeland improvements, and potential utility or transportation corridors. Lower sediment levels in Vineyard Creek would enhance the natural character of the area by improving the fisheries habitat for spawning hybrid cutthroat trout and the visual quality of the stream.

Dispersed recreation activities such as hiking and camping would experience increases slightly above projected levels due to reduced interaction with ORVs in Sand Butte and Raven's Eye WSAs and an improved visual quality of Vineyard Creek. Increased contact between ORV users and horseback riders or hikers in the Snake River Rim area would reduce riding and hiking activities from the levels they may have attained had the existing ORV limitation been left in place.

Mule deer hunting activity would increase 291 percent rather than 300 percent in Alternative A as a result of wilderness designation of Raven's Eye and Sand Butte WSAs. The elimination of ORV use in these areas, resulting from wilderness designation, would make entry and game retrieval in these prime hunting areas more difficult.

Visitor use days attributable to pheasant and Hungarian partridge hunting would increase by 84 percent and 96 percent respectively. Alternative A would result in an 88 percent and 100 percent increase, respectively. Land transfer and agricultural development would adversely effect upland bird hunting by eliminating critical wintering cover for birds and access on these parcels. Access to huntable areas would be a major concern in the future as more private lands are posted. However, the Reclamation transfer would provide additional acres of pheasant habitat, most of which would be open to hunting.

Off-road vehicle use would increase by 99 percent compared to a 100 percent increase under present management as a result of ORV closures in wilderness areas and the associated Sand Butte closure area. Moderate limitations on ORV use in Cedar Fields would adversely effect ORV use. Lifting of the "Designated Roads and Trails Only" ORV limitation in a portion of the Snake River Rim area would expand ORV opportunities there.

Potential for developing a cross-country ORV trail between the Snake River Rim SRMA and Bear Trap Cave would be preserved. Tracts vital to development of the trail would be retained in Federal ownership.

Scenic quality in Cedar Fields would improve as a result of ORV limitations in the area. Future resource uses and proposals would be closely examined to prevent degradation of scenic quality in Vineyard Creek and Box Canyon.

Soils

Erosion would increase by 8 percent to 5.2 tons/acre/year. Of the 1,178,989 acres in the planning area, 39,248 acres (3 percent) would have a severe erosion problem by the end of 20 years. This increase would be primarily due to increased livestock stocking rates, land treatments, and management facilities. These activities would reduce vegetation cover. In the case of land treatments, the actual effect would be short term at the time the vegetation is disturbed. However, the effect has been averaged into the long term for this analysis. Erosion would be reduced on 2,423 acres of ORV closures or limitations, and on 150 acres of sand dunes proposed for seeding. Soil productivity could be reduced on 11,846 acres adjacent to and downwind from land transfers developed for agriculture. Appendix I contains a discussion about changes in erosion rates and the equations used to estimate erosion rates.

Minerals and Energy

Wilderness designation would restrict mineral activities on 87,902 acres. New mining claims would be prohibited after wilderness designation, as well as sale or free-use of mineral materials. Valid existing rights of mining claimants would be protected. Few locatable mineral resources have been identified to date. No significant mineral resources are known to occur within the WSAs recommended suitable. Energy mineral leasing activities could be restricted to protect wilderness character. Areas within WSAs are considered to have low potential for oil and gas and geothermal energy production and there has been little or no exploration activity.

Minor restriction of mining activity would result from ORV limitations on 2,240 acres of lands designated mineral in character in the Cedar Fields SRMA. Minor restriction of mineral lease development would result from surface occupancy restrictions in Vineyard Creek ACEC, Box Canyon/Blueheart Springs ACEC, Substation Tract ACEC, and Areas of Geologic Interest.

Mineral material sale or free use would be prohibited on 1,264 acres within the proposed Dry Cataracts National Natural Landmark. Most of this area has potential for mineral material deposits.

Material sites currently in use on 540 acres would be lost to public use by transfer. Two thousand five-hundred eighty acres of possible mineral

material deposits would be lost by transfer. Loss of these material sites could cause considerable hardship and higher costs to highway departments and the public who depend upon these sites for mineral materials.

Transfer could create problems of split estate ownership, a situation where the surface is privately owned, but the subsurface mineral rights are Federally owned. This could make mineral exploration more complicated, time consuming, and expensive.

Economic Conditions

Appendix J contains a detailed comparison of the economic effects of each alternative.

Grazing Related Economic Effects. By the end of 20 years, this alternative would generate additional income for the livestock permittees of \$872,000 annually. This is based on the ranch budgeting results. The effects by size group are shown in Table 4-3. This would be a 65 percent increase over current income generated by BLM grazing use in the planning area. This would be less than a 1 percent increase in income in the agriculture sector of the local economy. Grazing-related employment would increase by 48 jobs, which would be roughly a 1 percent increase in the agricultural sector employment.

TABLE 4-3

LIVESTOCK INCOME AND EMPLOYMENT CHANGES ALTERNATIVE C

Size Group	Proposed Grazing Use	Change in Use	Income Change	Employment Change
1	17,188	+ 5,566	+ \$103,528	+ 5.7
2	33,073	+10,710	+ \$199,206	+10.9
3	50,626	+16,395	+ \$304,947	+16.8
4	43,889	+14,213	+ \$264,362	+14.5
Total	144,776	+46,884	+ \$872,043	+47.9

The secondary (multiplier) effect of this alternative would add another \$543,500 in earnings and 30 additional jobs to the local economy.

There would be a total of \$1,607,900 spent on range improvements with this alternative. This would convert to earnings of \$923,000 and 42 jobs. This would be short term in nature and the jobs would only last until the improvements were installed. In addition, there would be annual maintenance

costs of \$33,500, which would convert to annual income of \$19,200. This would add one job to the local economy.

Grazing fee collections would be increased with this alternative in the following manner:

Range Improvement Fund	+ \$ 44,638
Federal Treasury	+ \$ 33,479
State of Idaho	+ \$ <u>11,159</u>
Total	+ \$ 89,276

The total capital value of the AUMs gained would amount to between \$2.6 million and \$11.7 million.

Recreation-Related Economic Effects. By the end of 20 years, the annual direct and secondary income generated by recreation-related activities would increase by \$2 million. This would represent a 14 percent increase in retail trade earnings over present levels. There would be approximately 202 jobs added in recreation-related employment by year 20. This would be an increase of 15 percent over current retail trade employment.

Crop Agriculture-Related Economic Effects. Under this alternative, 26,955 acres would be developed for crop agriculture (2,500 DLE; 24,455 CA). This would convert to 128 new farms with total revenues of \$14 million, and total costs of \$13.8 million. Net revenues would amount to \$230,000. Approximately 768 new jobs would be generated (direct and secondary) from this development. Total earnings (direct and secondary) would amount to \$13.4 million.

Land Transfers. This alternative would have a land transfer benefit of \$2,587,200.

Fire Suppression. Annual fire suppression costs would total \$306,200 with an additional \$10,000 for road maintenance.

Summary. Total earnings (direct and secondary) would be increased by \$16.8 million and employment (direct and secondary) would increase by 1,048 jobs. The costs for range improvements and fire suppression would amount to \$430,075 annually. The livestock industry would receive significant benefits with virtually no impact to recreation-related activities. The crop agriculture industry would receive major benefits from this alternative.

Alternative D

Fire Management

An increase of 6 to 7 percent (2,040 to 2,380 acres) in acres burned could be expected in this alternative, with no change in the number of occurrences. The impact of no or limited suppression in proposed wilderness areas would have the greatest effect, raising the acres burned by 7.5 to 8.5 percent above the present situation. Another consideration in wilderness is the inclusion of the Shale Butte WSA, which is bordered by farm land, roads, UPRR tracks, and is located in a high lightning frequency area. The WSA has had numerous burn overs, both from ignition inside and outside the WSA. Protection of this area to keep recurring mancaused fires, ignited outside the WSA, from burning into or over the WSA and adversely affecting naturalness would be very costly .

A major concern of fire management would be the individual fire plans for the WSA's. At present, occurrence in these areas (other than Shale Butte and Sand Butte) is moderate to low with moderate to low acres burned. In the event no or limited action is taken, the occurrence rate would probably stay low to moderate, but acres burned would be increased.

Lower livestock grazing levels would increase average burn size by about 2 percent. This is because more continuous fuels would be present.

The influence of additional road maintenance (3.5 percent decrease) would partially offset the effect of wilderness management and lower livestock grazing to result in the overall 6 to 7 percent increase in acres burned.

Increases would be averages measured on a long term basis. The number of fires and acres burned varies greatly from year to year.

Wildlife

Under this alternative, a total of 126 parcels would be included in the Isolated Tracts program; an increase of 39 from the existing 87.

Where specific numbers of animals are listed below, we anticipate that 50 percent of the change would occur within 5 years, and the remaining 50 percent within 20 years. Refer to Appendix C, "Methodology" for an explanation of how the numbers were derived.

Bliss Rapids Snail (Candidate Endangered). Under this alternative, the habitat of the snail would be afforded greater protection through designation of Box Canyon/Blueheart Springs and Vineyard Creek as ACECs. Even though other uses would be allowed, the type and degree of development would be limited so as not to deplete the habitat value for this species.

Ferruginous Hawk (Candidate Threatened). A population increase could be expected as a result of the placement of artificial nest structures. The only known nest site plus excellent potential sites for nest structures would receive additional protection from disturbing influences of future developments if the Sand Butte, Raven's Eye, Little Deer, and Bear Den Butte WSAs are designated wilderness.

Swainson's Hawk (Candidate Threatened). An unknown population increase is expected because artificial nest sites could potentially be provided on any or all of the 126 Isolated Tracts. By maintaining a large number and variety of these tracts, chances of success in attracting breeding Swainson's hawks are increased.

Burrowing Owl (Sensitive). A net gain of 21 pairs could be expected as a result of artificial nest site placement and burrow protection on the 126 Isolated Tracts.

Shoshone Sculpin (Sensitive). Under this alternative, the habitat of the Shoshone sculpin would be afforded a greater degree of protection through designation of Box Canyon and Blueheart Springs as an ACEC. Even though other uses may be allowed, the type and degree of development would be limited so as not to deplete the habitat value for this sensitive species. ACEC designation would give priority to managing for the needs of the species.

Ring-Necked Pheasant. A net increase of 16,900 birds could be expected. Benefits would result from protection and improvement of winter and nesting cover on Isolated Tracts and from improved cover on approximately 130,000 acres of public land adjacent to agricultural land as a result of lowered grazing pressure.

Gray Partridge (Hungarian Partridge). A net increase of 2,800 birds could be expected for the same reasons as those cited for pheasants.

Sage Grouse. A net population increase of 10 percent could be expected as a result of an improved forb component. Reduction of grazing would remove competition for forbs posed by livestock, especially sheep, throughout the nesting habitat. Development and implementation of a sage grouse HMP would maintain high rates of winter survival and increase brood rearing success.

Pronghorn. A net increase of 237 animals could be expected. Positive benefits would result mainly from better range condition, especially an increased forb component, under lower grazing pressure. Substantial gain would result from seedings and brush protection on Isolated Tracts which would improve both winter habitat and fawning cover. Development and implementation of a HMP for pronghorn winter habitat would help increase winter survival. Development and implementation of a summer range HMP would also benefit pronghorn.

Mule Deer. A net gain of 123 animals could be expected due to better habitat condition, especially on increased forb and grass component, under lower grazing pressure. Lack of direct disturbance by livestock and associated behavior of man would be a positive effect. Improvements on Isolated Tracts would also contribute to an increase in both resident and wintering deer. Implementation of the HMP for pronghorn winter range would also benefit some wintering deer.

Hybrid Cutthroat/Rainbow Trout. Under ACEC designation, the spawning habitat of this unique population would receive greater attention than without such designation.

Non-Game Species. A net gain of 7,800 pairs of breeding birds could be expected primarily as a result of increased habitat quality under lower grazing pressure. A substantial gain would also result from improved habitat quality on Isolated Tracts and in brush protection areas.

Livestock Forage

Grazing Management. This alternative would allow a total of 59,106 AUMs of forage for livestock. This is a loss of 38,786 AUMs (40 percent) from the present five-year average actual use, or 90,029 AUMs (60 percent) from active preference. Reductions would take place in all allotments. See Tabel D-3 in Appendix D for allotment specific details.

An estimated 8,529 sheep AUMs would be converted to cattle AUMs. As a result, the amount of nonuse attributable to the continued decline of the sheep industry would be reduced.

There would be no significant impact on permittees in allotments proposed for new AMP or CRMP development. Six of these plans would be prepared to implement conversions of sheep to cattle. In these allotments, permittees would have to spend more time on maintenance of range improvements, but would spend much less time tending livestock. One of the plans would alter existing management and another would implement a new management system. In these allotments, permittees would have to spend some additional time on maintenance of range improvements and tending livestock. The remaining proposed AMPs or CRMPs would formalize existing management in an allotment.

Vegetation. The proposed 40 percent decrease in AUMs (from actual use) under this alternative would result in much lighter utilization of available forage. Grazing in areas presently receiving light use would probably drop to no use and all other areas would show a proportionate decline in grazing pressure. A modest increase (6.5 percent) in acres burned each year would diminish the positive effects of lower grazing. The trends expected under Alternative D are:

Upward	24 percent
Stable	75 percent
Downward	1 percent

A slight increase in ecological condition is expected with a 1 percent rise in good condition range. Other improvements in condition are expected to be too subtle to cause a change in condition classes. Condition classes would be as shown below:

Good	3 percent
Fair	8 percent
Poor	69 percent
Seeded	20 percent

Refer to Appendix D, "Projecting Ecological Condition and Trend" for an explanation of how the projections above were derived.

ACEC designations would be made on the Substation Tract and the Silver Sage Playa. Special management considerations could then be given to protect these tracts from disturbance and significant scientific values would be preserved.

No effects on Threatened or Endangered plant species are expected to occur under this alternative.

Lands

No current Carey Act entries would be allowed in this alternative, and DLE applications containing 2,461 acres would be denied.

Allowances could be made on DLE applications containing 3,109 acres with 1,305 acres available through other means of disposal.

Impacts associated with lands disposals are the same as identified in Alternative A. Because of the slightly greater amount of acreage involved, the impacts would, correspondingly, also be slightly greater.

Land uses would be restricted to those compatible with wilderness management on 154,015 acres. For example, ORV use would be prohibited and no utility developments could be installed.

In addition to the wilderness acres discussed above, lands activities would be limited to those not involving motor vehicle use on 2,211 acres. For example, a right-of-way application might be denied or modified because motor vehicles could not be used to install or maintain developments.

Other non-transfer lands actions would continue under constraints set out in the resource management guidelines (see Chapter 2) and Standard Operating Procedures (see Appendix E) with the same general impacts identified in Alternative A.

Wilderness

Shale Butte WSA (57-2). All of the WSA would be recommended suitable for wilderness designation. Wilderness resource values would be maintained throughout the WSA. The wilderness value of naturalness would benefit significantly under this alternative since the WSA would receive priority for fire suppression. As a result, the fire cycle would increase from the present five year cycle to a 25-year cycle. This would encourage more vegetation typical of the Sagebrush-Steppe type.

Existing ways and roads inside the WSA would be used occasionally by motorized vehicles for the purpose of livestock management. This use would have a slight adverse impact on the wilderness value of solitude.

Sand Butte WSA (57-8). All of the WSA would be recommended suitable for wilderness designation. Wilderness resource values would be maintained throughout the WSA. Existing ways and roads inside the WSA would be used occasionally by motorized vehicles for the purpose of livestock management.

This use would have a slight adverse impact on the wilderness value of solitude. Boundary roads would be improved and maintained to facilitate fire suppression. The wilderness value of naturalness would benefit from this since fewer fires would burn into the WSA from outside the unit and a more natural fire cycle could be established. However, restricted fire suppression inside the WSA could result in a larger average fire size for fires that start within the unit.

Raven's Eye WSA (57-10). All of the WSA would be recommended suitable for wilderness designation. Wilderness resource values would be maintained throughout the WSA. Existing ways and roads inside the WSA would be used occasionally by motorized vehicles for the purpose of livestock management. This use would have a slight adverse impact on the wilderness value of solitude. Boundary roads would be improved and maintained to facilitate fire suppression. The wilderness value of naturalness would benefit from this since fewer fires would burn into the WSA from outside the unit and a more natural fire cycle could be established. However, restricted fire suppression inside the WSA could result in a larger average fire size for fires that start within the unit.

Little Deer WSA (59-11). All of the WSA would be recommended suitable for wilderness designation. Wilderness resource values would be maintained throughout the WSA. Existing ways and roads inside the WSA would be used occasionally by motorized vehicles for the purpose of livestock management. This use would have a slight adverse impact on the wilderness value of solitude. Boundary roads would be improved and maintained to facilitate fire suppression. The wilderness value of naturalness would benefit from this since fewer fires would burn into the WSA from outside the unit and a more natural fire cycle could be established. However, restricted fire suppression inside the WSA could result in a larger average fire size for fires that start within the unit.

Bear Den Butte WSA (57-14). All of the WSA would be recommended suitable for wilderness designation. Wilderness resource values would be maintained throughout the WSA. Existing ways and roads inside the WSA would be used occasionally by motorized vehicles for the purpose of livestock management. This use would have a slight adverse impact on the wilderness value of solitude.

Shoshone WSA (59-7). All of the WSA would be recommended suitable for wilderness designation. Wilderness resource values would be maintained throughout the WSA. Existing ways and roads inside the WSA would be used occasionally by motorized vehicles for the purpose of livestock management. This use would have a slight adverse impact on the wilderness values of solitude.

Natural History

Project work that occurred in the ten AGI would be examined to assure that access to sensitive areas would not be improved.

Geologic formations associated with the Bonneville Flood would be protected from human disturbance that would impair natural history values in the proposed Dry Cataracts National Natural Landmark. This includes alluvial gravel deposits; mineral material sale and free use would be prohibited.

Resource use proposals would be examined closely to prevent degradation of natural history values related to the unique alcove ecosystem in the proposed Box Canyon National Natural Landmark.

Cultural Resources

Since any Bureau authorized or initiated action recognizes and accommodates cultural resources by virtue of our standard operating procedures (see Appendix H), the only activity which may damage these resources is unplanned public use. Such activities include unauthorized recreational vehicle use, artifact collection, and illegal excavation for materials and antiquities. The location of these activities is impossible to predict and may occur in spite of measures designed to exclude or limit them.

Effects of Alternative D would be the same as for Alternative B, but with 9,955 acres of high density areas protected by ORV closure, 2,554 acres of high density areas protected by ORV limitation, and 12,329 acres of high density areas by limited disturbance.

Recreation

The growth rates discussed below are long-term (20-year) projections. The projected growth rates, both short-term (5-year) and long-term, are listed in Table 2-3 for various recreation activities.

Recreation use would experience larger increases than under present management in this alternative, but not all activities would share equally in these new opportunities. Activities best suited to primitive settings or dependent on upland bird habitat would show larger increases than those activities involving ORV use under this alternative. This alternative would increase primitive settings by 81 percent within the planning area. All potential wilderness areas within the planning area would be designated.

Recreation opportunities would generally decrease in quality. Recreationists would experience greater competition for recreation resources and recreation-related conflicts would increase.

Upland bird hunting (pheasant and Hungarian partridge) activity would increase as bird populations increase. Management of isolated tracts for wildlife and lower grazing levels would improve upland bird habitat and populations. This alternative would result in an increase of 96 percent for pheasant hunting and 104 percent for Hungarian partridge hunting. Present management would result in an 88 percent and 100 percent increase, respectively.

Dispersed activities such as hiking, camping, and horseback riding would experience a 136 percent increase compared to a 120 percent increase under Alternative A. Wilderness designation would improve or maintain the natural character of these areas by excluding disturbing influences such as ORVs, some rangeland improvements, and potential utility or transportation corridors. A decline in sedimentation of Vineyard Creek would enhance the natural character of the area by improving the fisheries habitat for spawning hybrid cutthroat trout and the visual quality of the stream. A natural environment is more conducive to dispersed recreation activities and dispersed use would increase if the environment becomes more natural. Nature study would be similarly enhanced by a more natural environment. Nature study activity would increase 58 percent compared to a 40 percent increase under present management.

Off-road vehicle use would be the activity most impacted by this alternative, experiencing a 68 percent increase rather than a 100 percent increase. ORV activity increases would be moderated by closures in all wilderness areas, limitations on ORV use in the Substation Tract and the Snake River Rim SRMA, and severe limitations placed on ORV use in Cedar Fields.

Potential for developing a cross-country ORV trail between the Snake River SRMA and Bear Trap Cave would be preserved. Tracts vital to development of the trail would be retained in Federal ownership.

Scenic quality in Cedar Fields would improve as a result of ORV limitations in the area. Future resource uses and proposals would be closely examined to prevent degradation of scenic quality in Vineyard Creek and Box Canyon.

As a result of ORV closures in WSAs designated wilderness, mule deer hunting increases would be limited to 263 percent, compared to an increase in Alternative A of 300 percent. Motorized entry into wilderness areas for purposes of spotting or retrieving deer would be prohibited. This would significantly decrease the number of visitor use days attributable to deer hunting from anticipated levels.

Soils

Erosion would be reduced by 15 percent to 4.1 tons/acre/year. Of the 1,178,989 acres in the planning area, 33,469 acres would have a severe erosion problem by the end of 20 years. This decrease from present conditions would be primarily due to lower livestock stocking rates, ORV closures and limitations on 2,777 acres, and seeding 150 acres of sand dunes. Erosion would increase on 2,300 acres because of increased fire. Soil productivity could be reduced on 837 acres adjacent to and downwind from land transfers developed for agriculture. Appendix I contains a discussion about changes in erosion rates and the equations used to estimate erosion rates.

Minerals and Energy

Wilderness designation would restrict mineral activities on 154,015 acres. New mining claims would be prohibited after wilderness designation, as well as sale or free-use of mineral materials. Valid existing rights of mining claimants would be protected. Few locatable mineral resources have been identified to date. No significant mineral resources are known to occur within the WSAs recommended suitable. Energy mineral leasing activities could be restricted to protect wilderness character. Areas within WSAs are considered to have low potential for oil and gas and geothermal energy production and there has been little or no exploration activity.

Two thousand two hundred forty acres of mineral in character lands in the Cedar Fields SRMA would be withdrawn from mineral entry.

Minor restriction of mineral lease development would result from surface occupancy restrictions in Vineyard Creek ACEC, Box Canyon/Blueheart Springs ACEC, Substation Tract ACEC, Silver Sage Playa ACEC, and Areas of Geologic Interest.

Mineral material sales or free use would be prohibited on 1,264 acres within the proposed Dry Cataracts National Natural Landmark. Most of this area has potential for mineral material deposits.

Two hundred twenty acres of possible mineral material deposits would be lost by transfer.

Transfer could create problems of split estate ownership, a situation where the surface is privately owned, but the subsurface mineral rights are Federally owned. This could make mineral exploration more complicated, time consuming, and expensive.

Economic Conditions

Appendix J contains a detailed comparison of the economic effects of each alternative.

Grazing-Related Economic Effects. By the end of 20 years, this alternative would lead to annual income losses of \$721,000 for the livestock permittees. This is based on the ranch budgeting results. The effects by size group are shown in Table 4-4. This would be less than a 1 percent reduction in agriculture sector income. Grazing-related employment would be reduced by 40 jobs, which would be roughly 1 percent of the current employment in the agriculture sector of the local economy.

TABLE 4-4
LIVESTOCK INCOME AND EMPLOYMENT CHANGES
ALTERNATIVE D

Size Group	Proposed Grazing Use	Change in Use	Income Change	Employment Change
1	7,017	- 4,605	- \$ 85,653	- 4.7
2	13,503	- 8,860	- \$164,796	- 9.1
3	20,668	-13,563	- \$252,272	-13.8
4	17,918	-11,758	- \$218,699	-12.0
Total	59,106	-38,786	- \$721,420	-39.6

The secondary (multiplier) effect of this alternative would cause additional income and employment losses of \$449,600 and 25 jobs.

There would be a total of \$732,500 spent on range improvement installation with this alternative. This would convert to earnings of \$420,500 and 19 jobs. This would be short term in nature and the jobs would only last until the improvements are installed. In addition, there would be annual maintenance costs of \$17,100, which would convert to annual income of \$9,800. No jobs would be generated by this maintenance activity.

Grazing fee collections would be decreased with this alternative in the following manner:

Range Improvement Fund	- \$ 38,786
Federal Treasury	- \$ 29,090
State of Idaho	- \$ 9,696
Total	- \$ 77,572

The total capital value of the AUMs lost would amount to between \$2.2 million and \$9.7 million.

With this alternative, permittees in size groups 2 and 3 (a total of 75 permittees) would have difficulty maintaining a viable ranching operation.

Recreation-Related Economic Effects. By the end of 20 years, the annual income gains (direct and secondary) generated by recreation-related activities would be \$2.1 million. This would represent a 15 percent increase in retail trade earnings over present levels. There would be approximately 206 jobs added in recreation-related employment by year 20. This would be an increase of 15 percent over current retail trade employment.

Crop Agriculture-Related Economic Effects. Under this alternative, 3,109 acres would be developed for crop agriculture (all DLR). This would convert to 15 new farms with total revenues of \$1.64 million and total costs of \$1.61 million. Net revenues would amount to \$27,000. Approximately 90 new jobs would be generated (direct and secondary) from this development. Total earnings (direct and secondary) would amount to \$1.57 million.

Land Transfers. This alternative would have a land transfer benefit of \$130,500.

Fire Suppression. Annual fire suppression costs would be \$306,200 with an additional \$14,000 for road maintenance. This alternative would also have an extra cost of \$35,000 annually to protect the Shale Butte WSA.

Summary. Total earnings (direct and secondary) would be increased by \$2.5 million and employment (direct and secondary) would increase by 231 jobs. The costs for range improvements and fire suppression would amount to \$408,900 annually. The recreation-related activities gain slightly over the other alternatives, but it is at the expense of significant income and employment losses in the livestock industry. Significant income and employment gains are realized by the crop agriculture industry.

Sub-Alternative D - No Grazing

Fire Management

This sub-alternative would produce a 100 percent increase in acres burned (to 68,000 acres) and an increase in the number of ignitions by 50 percent (to 122 starts). This would be a long term effect, taking 10 to 20 years for full realization. The fuel buildup and carry-over each year would have a compounding effect and would make normal (precipitation/growth) years comparable with the present one year in ten high fire occurrence year. Increased ignitions would be the result of accumulated fuels. Sources of ignitions that occur presently in areas devoid of fuels or have sparse fuels do not ignite, or if ignitions take place, burn out rapidly and are not detected. Ignition sources that presently do not cause fires would have a much greater change of ignition under the No Grazing Sub-Alternative because of added fuel. This would create new fire problems.

Other considerations in this alternative would be the lack of water supplies from user wells (no longer used for livestock water), side roads that would be untraveled from lack of user use, and areas that make fire breaks due to heavy grazing, i.e., fence lines and concentration areas. These factors would make fire suppression more difficult.

Increases would be averages measured on a long term basis. The number of fires and acres burned varies greatly from year to year.

Wildlife

Under this alternative, a total of 126 parcels would be included in the Isolated Tracts program; an increase of 39 from the existing 87.

Where specific numbers of animals are listed below, we anticipate that 50 percent of the change would occur within 5 years, and the remaining 50 percent within 20 years. Refer to Appendix C, "Methodology" for an explanation of how the numbers were derived.

Bliss Rapids Snail (Candidate Endangered). Under this alternative, the habitat of the snail would be afforded greater protection through designation of Box Canyon/Blueheart Springs and Vineyard Creek as ACECs. Even though other uses would be allowed, the type and degree of development would be limited so as not to deplete the habitat value for this species.

Ferruginous Hawk (Candidate Threatened). The great reduction of direct disturbance from grazing animals and associated activities of man would allow many natural historic nest sites to once again be suitable. It would not be necessary to provide artificial nest structures. A substantial population increase, perhaps 10 to 30 pairs, could be expected.

Swainson's Hawk (Candidate Threatened). An unknown population increase is expected because the 126 wildlife tracts would be maintained in habitat suitable for this species. Artificial nest sites could potentially be provided on any or all of these tracts. By maintaining a large number and variety of these tracts, chances of success in attracting breeding Swainson's hawks are increased.

Burrowing Owl (Sensitive). A net gain of 21 pairs could be expected as a result of artificial nest site placement and burrow protection on the 126 Isolated Tracts. Positive effects of the protection of burrows from trampling, however, could be offset by taller, denser vegetation and loss of sagebrush due to increased wildfire.

Shoshone Sculpin (Sensitive). Under this alternative, the habitat of the Shoshone sculpin would be afforded a greater degree of protection through designation of Box Canyon and Blueheart Springs as an ACEC. Even though other uses may be allowed, the type and degree of development would be limited so as not to deplete the habitat value for this sensitive species. ACEC designation would give priority to managing for the needs of the species.

Ring-Necked Pheasant. A net increase of 15,300 birds could be expected. Benefits would result from protection and improvement of winter and nesting cover on Isolated Tracts. Substantial improvement in the cover on 130,000 acres of public land adjacent to agricultural land would result from cessation of grazing. This large positive effect would be about 50 percent offset by increased fire and destruction of brush.

Gray Partridge (Hungarian Partridge). A net increase of 2,540 birds could be expected for the same reasons as those cited for pheasants.

Sage Grouse. A net population loss of 20 percent is expected. A greatly improved forb component would be a positive effect of this alternative. However, this would be more than offset by increased wildfire, which would cause increased brush loss and cheatgrass dominance.